

# PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

## **The Impact of Placement Stability on Behavioral Well-being for Children in Foster Care**

David M. Rubin, Amanda L.R. O'Reilly, Xianqun Luan and A. Russell Localio

*Pediatrics* 2007;119:336-344

DOI: 10.1542/peds.2006-1995

**This information is current as of February 8, 2007**

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://www.pediatrics.org/cgi/content/full/119/2/336>

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2007 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



## ARTICLE

# The Impact of Placement Stability on Behavioral Well-being for Children in Foster Care

David M. Rubin, MD, MSCE<sup>a,b,c,d</sup>, Amanda L. R. O'Reilly, MPH<sup>a,b,c</sup>, Xianqun Luan, MS<sup>e</sup>, A. Russell Localio, JD, MS<sup>f</sup>

<sup>a</sup>Pediatric Generalist Research Group, <sup>b</sup>Safe Place: The Center for Child Protection and Health, and Divisions of <sup>c</sup>General Pediatrics and <sup>e</sup>Biostatistics, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania; Departments of <sup>d</sup>Pediatrics and <sup>f</sup>Biostatistics, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania

The authors have indicated they have no financial relationships relevant to this article to disclose.

## ABSTRACT

**OBJECTIVE.** The problems children have upon entering foster care can potentially explain prior research findings that frequent placement changes are associated with poor outcomes. This study sought to disentangle this cascading relationship in order to identify the independent impact of placement stability on behavioral outcomes downstream.

**DESIGN/METHODS.** Placement stability over the first 18 months in out-of-home care for 729 children from the National Survey of Child and Adolescent Well-being was categorized as early stability (stable placement within 45 days), late stability (stable placement beyond 45 days), or unstable (never achieving stability). Propensity scores predicting placement instability based on baseline attributes were divided into risk categories and added to a logistic regression model to examine the independent association between placement stability and behavioral well-being using the Child Behavior Checklist and temperament scores from the National Longitudinal Survey of Youth.

**RESULTS.** Half (52%) of the children achieved early stability, 19% achieved later stability, and 28% remained unstable. Early stabilizers were more likely to be young, have normal baseline behavior, have no prior history with child welfare, and have birth parents without mental health problems. After accounting for baseline attributes, stability remained an important predictor of well-being at 18 months. Unstable children were more likely to have behavior problems than children who achieved early stability across every level of risk for instability. Among low-risk children, the probability of behavioral problems among early stabilizers was 22%, compared to 36% among unstable children, showing a 63% increase in behavior problems due to instability alone.

**CONCLUSIONS.** Children in foster care experience placement instability unrelated to their baseline problems, and this instability has a significant impact on their behavioral well-being. This finding would support the development of interventions that promote placement stability as a means to improve outcomes among youth entering care.

[www.pediatrics.org/cgi/doi/10.1542/peds.2006-1995](http://www.pediatrics.org/cgi/doi/10.1542/peds.2006-1995)

doi:10.1542/peds.2006-1995

### Key Words

child behavior, child behavior checklist, cohort studies, outcome assessment, foster care

### Abbreviations

NSCAW—National Survey of Child and Adolescent Well-being  
CBCL—Child Behavior Checklist

Accepted for publication Oct 3, 2006

Address correspondence to David M. Rubin, MD, MSCE, Children's Hospital of Philadelphia, 34th Street and Civic Center Boulevard, Attn: CHOP North—3535 Market, Room 1533, Philadelphia, PA 19104. E-mail: [rubin@email.chop.edu](mailto:rubin@email.chop.edu)

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275). Copyright © 2007 by the American Academy of Pediatrics

RESPONDING TO EVIDENCE that children were languishing in foster care, the Adoption and Safe Families Act of 1997 (Public Law 105–89) marked a turning point in child welfare policy, making permanency and adoption as important a priority for children in foster care as the traditional mission of ensuring safety and security for these children. However, despite this renewed focus on permanency and the resulting increase in adoptions since 1997,<sup>1</sup> nearly half of the children continue to reside in foster care for >18 months and many for years.<sup>2</sup> The experience for many of these children is often one of instability, because 1 in 3 will fail to achieve a long-lasting placement and may experience frequent placement moves and transfers to restrictive settings like group homes and residential treatment facilities that have been traditionally associated with poor outcomes.<sup>3</sup>

Research over the last 2 decades has demonstrated a strong association between frequent placement moves in foster care and poor outcomes.<sup>4–7</sup> This research inevitably suggests an opportunity for the child welfare system to improve well-being outcomes by prioritizing those services and interventions that seek to facilitate permanent long-lasting placements. However, this inference assumes that decisions of caseworkers or services received by children and their families are the primary factors that influence placement stability and later outcomes. Such an inference fails to consider the possibility that many of these children are unable to achieve such stability because of their attributes upon entering care. It may, therefore, be problematic to assume that improving efficiency in the way placement decisions are made or in the services offered to families would impact a population where half of the children already have serious behavioral and mental health problems upon entering care.<sup>8–15</sup>

For this reason, determining whether placement stability influences outcomes irrespective of a child's baseline attributes and problems may inform us as to whether the child welfare system, by improving its own efficiency in supervising placement decisions, might be able to improve outcomes for many of its children. However, to date, disentangling the cascading relationship between a child's problems and his or her subsequent placement stability has been a challenge for investigators and has rarely been reported in the literature.<sup>16</sup> Our group recently described the placement stability of a group of children from the National Survey of Child and Adolescent Well-Being (NSCAW) and found that a child's behavioral problems at entry into foster care could not entirely explain the risk of behavioral problems 3 years downstream. Children without behavioral problems at baseline who either reunified home or did not achieve any stability were twice as likely to have behavioral problems at 36 months compared with children who achieved early stability (defined as a long-

lasting placement within 45 days of entry into foster care).<sup>17</sup>

Although provocative, this previous study was purely descriptive and did not capture all of the attributes in a child's maltreatment history, health, and birth parents' characteristics that might influence their likelihood of placement stability and poor outcomes downstream. The current study attempts to explain the relationship between a child's well-being and placement history by applying a propensity score analysis on a cohort of children continuously in foster care from the NSCAW. The goal was to identify the innate contribution of a child's placement stability toward his or her risk for behavioral problems 18 months after entering foster care.

## METHODS

NSCAW was the primary data source for this analysis, a nationally representative prospective cohort study of which the primary aim was to study the health and well-being of children reported to child welfare over a 3-year follow-up period. The study included children who were recruited after a maltreatment report to child welfare from October 1999 to December 2000. Observations were collected through interviews with children, teachers, caregivers, caseworkers, and biological parents at baseline, 12 months, 18 months, and 36 months after enrollment.

From the original 5501 children, we restricted our sample to those children residing at home during the initial investigation for maltreatment and who were subsequently placed into a new spell of out-of-home care that lasted for  $\geq 18$  months. We excluded subjects with missing data and the small minority of children who spent >9 months in a group home or residential treatment facility, because their stability in a restrictive setting might have biased our findings toward the null hypothesis. Finally, we chose to include only children continuously in out-of-home care, because potential interventions with regard to placement stability would, by definition, impact this group the most, as opposed to those children whose family service plans carried a high probability of reunification home.

The primary exposure variable for this study was the child's placement stability over the first 18 months in out-of-home care. We adapted the methodology of James et al<sup>3</sup> in San Diego, California, to identify 3 distinct levels of stability for children entering out-of-home care. Early stability was defined as those children who achieved a long-lasting placement within 45 days of entry into out-of-home care, which was maintained for the period of observation. Children with late stability achieved a long-lasting placement, but only after 45 days, and unstable children failed to achieve a long-lasting placement that was maintained for  $\geq 9$  months until the end of the observation period.

The primary outcome for the study was the child's

behavioral well-being after 18 months in out-of-home care. We created a composite behavioral well-being variable constructed from 2 behavioral assessment tools: the Child Behavior Checklist (CBCL) for children aged  $\geq 2$  years and temperament scores for infants under 2 years. Combining both tools allowed us to include a population of children from birth until 15 years of age.

The CBCL is an often-used measure of known reliability and validity<sup>18</sup> and was administered to children  $\geq 2$  years of age at baseline and again after 18 months. Individual questions are rated using a 3-point Likert scale, in which the caregiver is asked about the frequency of a behavioral problem ("not or never true," "somewhat or sometimes true," and "very or often true"). The scores on individual items are then summed in a total behavioral problems scale, which are normed by age to identify standardized categories of normal, borderline ( $>83$ rd percentile), and clinical range ( $>90$ th percentile) for referral for mental health treatment. For our study, we used these normed cut points to dichotomize our outcome variable as normal behavior versus borderline or clinically important abnormal behavior for children  $>2$  years of age.

For children  $<2$  years of age, we included temperament scores that were developed originally for the National Longitudinal Survey of Youth. This instrument combined elements from Rothbart's infant behavior questionnaire and Campos and Kagan's compliance scale.<sup>19</sup> The temperament scores are designed to assess temperament or behavior style in infants, and although they include several domains, we restricted our analyses to the negative hedonic domain for children  $<1$  year and the difficult/negative hedonic domain for children between 1 and 2 years of age (both asked the same questions). These domains measured possible early behavioral problems that, at baseline, would have rendered the child at greater risk for placement instability. Typical questions in these domains include whether the child cries around strangers, gets upset when the primary caregiver leaves, or has trouble self-soothing. Items are summed using a 5-point Likert scale for each question (never/almost never to almost always). Individual items are totaled to report a continuous raw score, the higher of which indicates the likelihood of later behavioral problems.

The composite behavioral well-being outcome variable ultimately combined the dichotomized CBCL scores on the older children with a dichotomized variable of the infant temperament scores. The cut point of the temperament scores was chosen as 1 SD from the mean as determined on the sample of children included in the National Longitudinal Survey of Youth from 1992 (the most generalizable sample on which these scores have been applied).<sup>19</sup> Our team felt comfortable combining the temperament and CBCL scores, because previous data had suggested that temperament scores are highly

correlated with behavior in older children, and preliminary analyses with our data (not shown) confirmed this to be true.<sup>19</sup> A similar methodology was also used to encode the child's baseline behavioral well-being, likely the most important baseline attribute that might have confounded the relationship between placement stability and subsequent well-being.

Covariates included a broad array of child, birth parent, and maltreatment history characteristics that are potentially important determinants of whether a child would experience placement instability and poor well-being downstream. Child-level factors included the child's age (categorized as 0–1, 2–10, and 11–15 years), race (white non-Hispanic, black, Hispanic, or other), gender, history of chronic medical problems (yes or no), and baseline behavioral well-being (as noted above, dichotomized as normal versus abnormal). Birth parent characteristics included a history of mental health problems, drug or alcohol use, history of domestic violence, or arrests. Child maltreatment characteristics included the type of maltreatment (physical abuse, sexual abuse, or neglect/abandonment) or whether the child had a previous history of investigations, substantiated reports, or out-of-home care.

Because of the unequal probabilities of selection in the stratified, clustered design elements in the NSCAW data, weighted frequencies are reported to generalize the findings to a nationally representative group of children entering out-of-home care. Because of the great variability of the design weights (range: 1–6908), we trimmed the design weights above the 95th percentile.<sup>20</sup> Separate analyses (data not provided) revealed that trimming the weights at the 95th percentile had minimal effect on point estimates for unadjusted associations but reduced the variance of estimates by a factor of 2. Additional trimming did not reduce variance substantially to warrant further adjustment of the weights for analyses.

To adjust for the baseline characteristics that may have confounded the relationship between placement stability and well-being, we used a propensity score analysis in which characteristics of the child, birth parent, and maltreatment history were entered into an ordinal logistic regression model that predicted the likelihood of placement instability. Factors that were significant in bivariate  $\chi^2$  analyses ( $P < .2$ ) were added to the multivariate model. Because we were not concerned with overfitting the propensity score model, we expanded the baseline score of the CBCL and temperament scores to quartiles. Age was interacted with the child's baseline well-being score to account for the differences in interpretation of the scores and type of measure across age. After fitting the model, a postestimation probability of placement stability was calculated for each child, and these probabilities were then divided into tertiles that expressed the likelihood of placement instability for each child (low, medium, or high). Further model diagnostics

**TABLE 1 Unadjusted Association Between a Child's Baseline Attributes and Placement Stability at 18 Months**

Characteristic	Early Stability (52.2%; <i>n</i> = 354)		Late Stability (19.4%; <i>n</i> = 164)		Unstable (28.4%; <i>n</i> = 211)		F	<i>P</i>
	%	( <i>n</i> )	%	( <i>n</i> )	%	( <i>n</i> )		
Demographics								
Child's age, y								
<2	57.2	(184)	18.8	(89)	24.1	(76)	3.1	.02
2–10	58.0	(130)	16.7	(47)	25.4	(76)		
>10	34.8	(40)	23.1	(27)	42.2	(59)		
Gender of child								
Female	53.1	(201)	19.9	(91)	27.0	(101)	0.2	.82
Male	51.0	(153)	18.7	(73)	30.3	(110)		
Race/ethnicity of child								
White, non-Hispanic	51.4	(130)	18.9	(65)	29.7	(77)	0.6	.72
Black	55.6	(154)	18.6	(71)	25.8	(81)		
Hispanic	44.6	(48)	26.6	(18)	28.8	(31)		
Other	48.7	(20)	15.4	(9)	35.9	(19)		
Child health								
Child's baseline behavior								
Normal	56.6	(267)	18.7	(114)	24.7	(130)	2.7	.07
Abnormal	44.8	(85)	21.5	(50)	33.8	(76)		
Any child health problems at baseline								
Yes	49.8	(161)	19.3	(89)	30.9	(103)	0.4	.64
No	54.2	(193)	19.4	(75)	26.3	(108)		
Abuse/maltreatment history								
Type of abuse reported								
Neglect or abandonment	44.7	(99)	23.8	(48)	31.5	(70)	1.1	.35
Physical	58.4	(157)	15.3	(67)	26.3	(82)		
Sexual	41.5	(21)	18.5	(11)	40.1	(20)		
Other	55.1	(44)	19.4	(19)	25.5	(19)		
Any history of Child Protective Services involvement								
Yes	47.6	(220)	19.3	(107)	33.1	(156)	3.5	.03
No	61.2	(134)	19.5	(57)	19.3	(156)		
Birth parent characteristics								
Caregiver has serious mental/behavioral problems								
Yes	47.5	(195)	19.8	(87)	32.8	(132)	2.4	.09
No	57.7	(159)	18.9	(77)	23.4	(79)		
Caregiver history of domestic violence or arrests								
Yes	51.7	(204)	18.9	(93)	29.5	(116)	0.15	.86
No	53.0	(150)	20.1	(71)	26.9	(95)		
Caregiver problems with drugs or alcohol								
Yes	54.3	(196)	17.2	(95)	28.5	(106)	0.7	.50
No	50.0	(158)	21.7	(69)	28.3	(105)		

confirmed that the propensity score tertiles balanced the covariates in the model as intended.

The propensity score categories (or, from here forward, the risk categories for placement instability) were subsequently added as a categorical covariate to a logistic regression model predicting the likelihood of behavioral problems at 18 months as a function of a child's placement stability. After constructing the model, we used conditional standardization<sup>21</sup> to estimate the probability of behavioral problems (with 95% confidence intervals) for children in each level of risk for instability and by the stability they actually achieved.

All of the analyses were conducted using Stata 9.0 (Stata Corp, College Station, TX). Permission to use the NSCAW data was granted by the National Data Archive for Child Abuse and Neglect, and approval for the study

was obtained from the institutional review board at the Children's Hospital of Philadelphia.

## RESULTS

From the population of 5501 children in the NSCAW Child Protective Services sample, 729 children remained in continuous foster care throughout the 18-month follow-up period and spent  $\leq 9$  months in a restricted residential setting. Of these children in our study population, 38% were  $< 2$  years, 41% were between 2 and 10 years, and 22% were  $\geq 11$  years. More than half of the children were girls (57%), and the vast majority of children were either white (44%) or black (38%) with the remaining children of Hispanic (13%) or other (6%) origin. At the time of entry into this study, 12% of children  $< 2$  years old had abnormal temperament

scores, and almost half (46%) of children >2 years had abnormal CBCL scores. This resulted in 33% of the overall study population having abnormal behavior scores, as well as roughly half (45%) of the total population reporting some health problems at baseline.

Most children entering foster care at the beginning of this study either suffered physical abuse (40%) or were neglected or abandoned by their caregiver (37%), whereas 7% of children were sexually abused, and 15% suffered some other type of abuse. Overall, 66% of all of the children had some previous history with child protective services, and more than half reported a biological caregiver with either serious mental or behavioral problems (54%), a history of domestic violence or arrests (58%), or problems with either drugs or alcohol (53%).

The unadjusted association between a child's baseline attributes and placement stability at 18 months appears

in Table 1. After 18 months in foster care, 52% of children achieved early stability, 19% achieved late stability, and 28% remained unstable. Early stabilizers were more likely to be young ( $P = .02$ ), have normal baseline behavior ( $P = .07$ ), have no previous history with Child Protective Services ( $P = .03$ ), and have birth parents who did not have serious mental or behavioral problems ( $P = .09$ ).

The unadjusted association between a child's baseline attributes and behavioral well-being outcomes at 18 months appears in Table 2. After the follow-up period, 38% of children measured abnormal on the composite well-being measure compared with 33% at baseline. As expected, the strongest predictor of a child's behavioral outcome at 18 months was his or her assessment of behavioral problems at baseline ( $P < .001$ ). At the same time, placement stability was also strongly associated

**TABLE 2 Unadjusted Association Between a Child's Baseline Attributes And Behavioral Well-being Outcomes at 18 Months**

Characteristic	Normal (62.4%; <i>n</i> = 425)		Abnormal (37.6%; <i>n</i> = 264)		F	<i>P</i>
	%	( <i>n</i> )	%	( <i>n</i> )		
Demographics						
Child's age, y						
<2	73.3	(254)	26.7	(85)	3.7	.03
2–10	56.9	(123)	43.1	(115)		
>10	52.8	(48)	47.2	(64)		
Gender of child						
Female	64.8	(230)	35.2	(144)	1.2	.28
Male	59.3	(195)	40.7	(120)		
Race and ethnicity of child						
White non-Hispanic	61.5	(152)	38.5	(105)	0.3	.84
Black	63.0	(179)	37.0	(114)		
Hispanic	68.6	(65)	31.4	(25)		
Other	64.3	(28)	35.8	(15)		
Child health						
Child's baseline behavior						
Normal	73.6	(357)	26.4	(129)	28.8	<.0001
Abnormal	40.0	(67)	60.0	(131)		
Any child health problems at baseline						
Yes	56.5	(190)	43.5	(141)	3.4	.07
No	67.2	(235)	32.8	(123)		
Abuse/maltreatment history						
Type of abuse reported						
Neglect or abandonment	61.6	(125)	38.4	(81)	0.0	.99
Physical	61.7	(184)	38.3	(109)		
Sexual	59.3	(19)	40.7	(27)		
Other	62.4	(49)	37.6	(28)		
Any history of Child Protective Services involvement						
Yes	58.3	(261)	41.7	(192)	4.4	.04
No	70.1	(164)	29.9	(72)		
Birth parent characteristics						
Caregiver has serious mental/behavioral problems						
Yes	58.6	(223)	41.4	(165)	2.1	.16
No	66.8	(202)	33.2	(99)		
Caregiver history of domestic violence or arrests						
Yes	61.7	(245)	38.3	(145)	0.1	.74
No	63.4	(180)	36.6	(119)		
Caregiver problems with drugs or alcohol						
Yes	69.1	(249)	30.9	(124)	5.3	.02
No	55.0	(176)	45.0	(140)		



with behavioral outcomes in a stepwise relationship; 31% of early stable, 38% of late-stable, and 51% of unstable children had abnormal behavioral outcomes after 18 months ( $P = .004$ ).

Notwithstanding the importance of a child's baseline behavior and placement stability toward future well-being, other attributes also appeared in unadjusted analysis to be associated with the child's behavioral outcome at 18 months. Children with good behavioral outcomes tended to be younger ( $P = .03$ ), have no history of health problems ( $P = .07$ ), and have no previous history with Child Protective Services ( $P = .04$ ). Children with better outcomes were also less likely to have a biological parent with a serious mental or behavioral problem ( $P = .16$ ) but, interestingly, more likely to have a biological parent who had a problem with drugs or alcohol ( $P = .02$ ).

Each of the factors associated with placement stability and/or well-being were considered in the propensity score analysis that determined the risk groups for placement instability. Factors that were no longer significant in the multivariate model and did not change the estimates for key factors of interest were dropped to create the most parsimonious model. After estimating the predicted probability of placement instability for each child, the children were divided into tertiles to describe low, medium, and high levels of baseline risk for placement instability; 37% of children were in the low-risk group, 30% in the medium-risk group and 33% in the high-risk group. The risk groups were highly predictive of placement instability for the children (see Fig 1): 63% of the low-risk children and 56% of the medium risk children achieved early stability compared with only 39% of the high-risk children. At the same time, 38% of the high-risk children had unstable histories compared with 20% and 26% among the low- and medium-risk groups, respectively.

The predicted probabilities of behavioral problems at

18 months, derived from the final multivariate model that included the risk group for instability and each child's observed stability, appear in Fig 2. Although there were no significant differences between early and late-stable children, children with unstable placements had twice the odds of having behavior problems as children who achieved early stability at every level of risk for instability (odds ratio: 1.99; 95% confidence interval: 1.13–3.50). In the low-risk group, the probability of behavioral problems among early stabilizers was 22% compared with 36% among unstable children, showing a 63% increase in behavior problems because of instability. In the high-risk group, behavioral problems were much more likely across all levels of stability, and there remained a large increase in predicted behavioral problems among unstable children. Children who achieved early stability had a probability of behavioral problems of 47%, whereas 64% of unstable high-risk children were estimated to have behavior problems, indicating a 36% increase in behavior problems because of instability.

## DISCUSSION

The current study provides the most compelling evidence to date that placement stability, independent of a child's problems at entry into care, can influence well-being for children in out-of-home care. Regardless of a child's baseline risk for instability in this study, those children who failed to achieve placement stability were estimated to have a 36% to 63% increased risk of behavioral problems compared with children who achieved any stability in foster care. The impact of placement stability on behavioral problems was not trivial, because even among the children who carried a low risk for placement instability, 1 in 5 children (20%) failed to achieve any stability in the first 18 months of foster care.

That nearly 1 in 3 children overall failed to achieve any placement stability reveals that across the nation

FIGURE 1

Actual placement stability for children over their first 18 months in out-of-home care by their risk for instability.

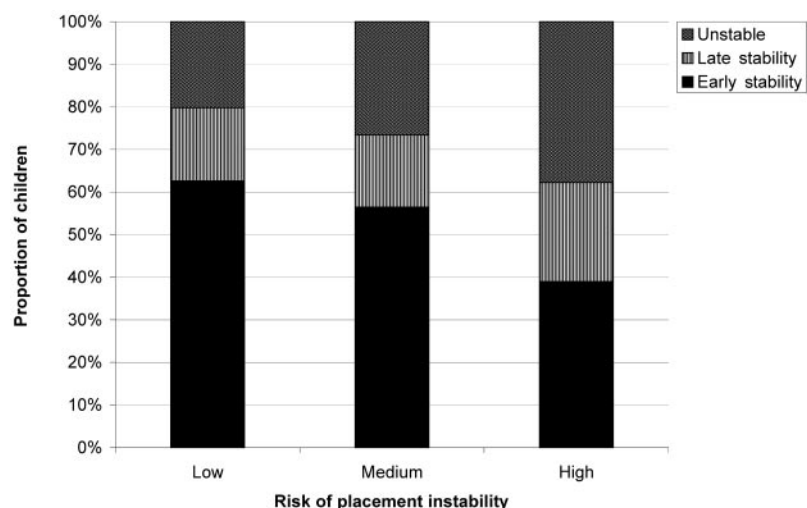
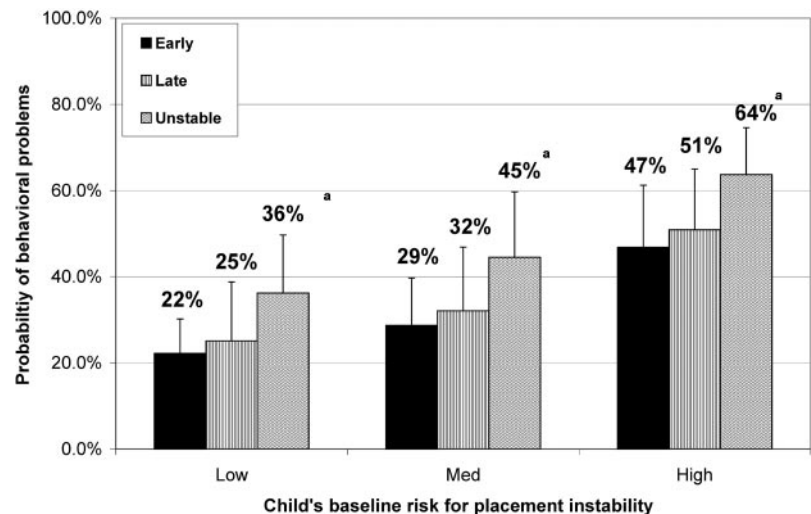


FIGURE 2

Probability of behavioral problems at 18 months by child's placement stability and baseline risk for problems.



there is likely to be ample opportunity to influence rates of placement stability at the local level. Previous data from 1 county that contributed data to NSCAW has also revealed that 70% of all placement moves in that county were administrative in nature and seemingly unrelated to the behavior of the child.<sup>22</sup> Many of these moves involved a change in caseworker, agency, or an adjudicated decision made irrespective of the child's attachment within a foster home. Although it is clear that not all placement moves were preventable, the magnitude of administrative moves, a topic receiving little attention in the literature, presents a considerable opportunity to improve stability by applying best practice to administrative decision-making.

Interventions to improve placement stability and downstream outcomes have been relatively unstudied, but the number of opportunities for intervention is likely to be many. For the pediatric community that is often on the sidelines of children moving in and out of foster care, these results should encourage practitioners to take a greater involvement in helping children in foster care to access services, in supporting foster parents in managing child behavior issues, and in working with the child welfare system to consider alternatives to placement change or strategies to prevent them. Indeed, the responsibility for intervention does not belong to the child welfare system alone, because the interaction with the health care system and the timeliness in which children receive preventative services, particularly mental health, has continued to be a problem.<sup>23,24</sup>

Nevertheless, over the past decade, many states, in response to the Adoption and Safe Families Act and the Child Family Service reviews that began in the year 2000, have increasingly devoted resources toward managing health and related services for children in the child welfare system. The result has been an increasing number of "joint ventures" and cross-sector partnerships with health care agencies to promote service integration

and improve accessibility and quality of care. In many systems, behavioral health workers have joined child welfare units to screen children on entry into care to identify at-risk children as soon as possible, a solution long recommended by the American Academy of Pediatrics, the Child Welfare League of America, and the American Academy of Child and Adolescent Psychiatry.<sup>24-28</sup>

Independent of the management of health resources, some child welfare systems have identified other opportunities to improve the practice by which their placement decisions are made and to increase the resources they devote toward stabilizing children in placement. For example, since 2002, the city of Philadelphia, Pennsylvania, and its contracted foster care agencies began implementing performance-based contracts for children entering general foster care and kinship care. Performance incentives focusing on well-being were embedded in agency contracts providing a clear incentive for agencies to ensure permanent homes for children, to universally screen all children coming into care, and to restrict caseloads moving between agencies. As of 2005, after the permanency and stability expectations placed on provider agencies rose, the rate at which children achieved permanency through reunification, adoption, or permanent legal custody increased by 84%. In addition, movement of children to higher levels of placement or to other foster care agencies decreased by 50% (Cheryl Ranson Garner, former Commissioner of the Department of Human Services for the city of Philadelphia, written communication, 2006). These data are promising and demand further research to determine the impact on well-being outcomes downstream.

There are important limitations to consider when interpreting our findings. Although the placement stability variable we used better accounted for the qualitative experience of children in foster care, it certainly could not be inclusive of all the types of experiences that



children have, including, for example, whether children were placed with kin or nonrelatives in out-of-home care. Future work will need to consider how type of placement a child has interacts with placement stability in predicting future well-being. Our study also evaluates only 1 domain of well-being. As such, future studies will need to measure other outcomes over longer periods of observation to determine whether improvements in permanency and adoption truly beget long-standing benefits to children. It is also certainly possible that we are overrepresenting the impact of placement stability on well-being because of the inability to detect all of the risk factors at the family level or other misclassification at baseline. However, to the degree that misclassification also impacted our outcome variable, we instead could have biased ourselves toward the null hypothesis of no association, making our findings all the more striking. Finally, our findings may have limited generalizability at the local level, so that local child welfare systems will need to conduct their own analyses to better understand the needs of children in their care and consider opportunities for intervention.

These limitations aside, our data are nevertheless compelling and provide a starting point for discussion of a more integrated approach to improving the stability and permanency of placements for children within the child welfare system. By demonstrating that nearly half of older children entering out-of-home care have serious behavioral problems, our study joins a chorus of previous studies that have demonstrated that the majority of older children in out-of-home care have serious behavioral problems. However, in contrast to previous studies, our study also highlights that placement experience is a significant contributor to a child's risk for behavioral problems unrelated to the baseline problems that a child had on referral for placement. Such a finding is particularly timely after the renewed focus on permanency for children in out-of-home care since the Adoption and Safe Families Act of 1997. Placement stability and permanency have been emerging as critical process outcomes for children entering out-of-home care, and our findings would support interventions that seek to impact these outcomes directly. The future will hold whether such interventions will then improve the lives of some of our most vulnerable children.

## REFERENCES

1. Wulczyn FH, Brunner K, Chen L. *Adoption Dynamics: The Impact of the Adoption and Safe Families Act*. Chapin Hall Center for Children at the University of Chicago; Chicago, IL; 2004. Updated version available at: <http://aspe.hhs.gov/hsp/fostercare-issues02/ASFA/index.htm>. Accessed July 1, 2006.
2. US Department of Health and Human Services, Administration for Children & Families. Adoption and foster care analysis and reporting system. Available at: [www.acf.hhs.gov/programs/cb](http://www.acf.hhs.gov/programs/cb). Accessed July 1, 2006.
3. James S, Landsverk JA, Slymen DJ. Placement movement in out-of-home care: patterns and predictors. *Child Youth Serv Rev*. 2004;26:185–206.
4. Pecora P, Kessler R, Williams J, et al. *Improving Family Foster Care: Findings From the Northwest Foster Care Alumni Study*. Seattle, WA: Casey Family Programs; 2005. Available at: [www.casey.org](http://www.casey.org). Accessed July 1, 2006.
5. Taussig HN. Children who return home from foster care: a 6-year prospective study of behavioral health outcomes in adolescence. *Pediatrics*. 2001;108(1). Available at: [www.pediatrics.org/cgi/content/full/108/1/e10](http://www.pediatrics.org/cgi/content/full/108/1/e10)
6. Jonson-Reid M, Barth R. From maltreatment to juvenile incarceration: uncovering the role of child welfare services. *Child Abuse Neglect*. 2000;24:505–520.
7. Barth RP, Jonson-Reid M. Outcomes after child welfare services: Implications for the design of performance measures. *Child Youth Serv Rev*. 2000;22:763–787.
8. Simms MD. The foster care clinic: a community program to identify treatment needs of children in foster care. *J Dev Behav Pediatr*. 1989;10:121–128.
9. Simms MD, Dubowitz H, Szilagyi MA. Health care needs of children in the foster care system. *Pediatrics* 2000;106(4 suppl): 909–918.
10. Rosenfeld AA, Pilowsky DJ, Fine P, et al. Foster care: an update. *J Am Acad Child Adolesc Psychiatry* 1997;36:448–457.
11. Halfon N, Mendonca A, Berkowitz G. Health status of children in foster care. The experience of the Center for the Vulnerable Child. *Arch Pediatr Adolesc Med*. 1995;149:386–392.
12. Chernoff R, Combs-Orme T, Risley-Curtiss C, Heisler A. Assessing the health status of children entering foster care. *Pediatrics* 1994;93:594–601.
13. Landsverk JA, Garland AF, Leslie LK. *Mental Health Services for Children Reported to Child Protective Services*. Vol 2. Thousand Oaks, CA: Sage Publications; 2002.
14. Trupin EW, Tarico VS, Low BP, Jemelka R, McClellan J. Children on child protective service caseloads: Prevalence and nature of serious emotional disturbance. *Child Abuse Negl*. 1993; 17:345–355.
15. Clausen JM, Landsverk J, Ganger W, Chadwick D, Litrownik A. Mental health problems of children in foster care. *J Child Fam Stud*. 1998;7:283–296.
16. Newton RR, Litrownik AJ, Landsverk JA. Children and youth in foster care: distangling the relationship between problem behaviors and number of placements. *Child Abuse Negl*. 2000; 24:1363–1374.
17. Rubin DM, O'Reilly A, Luan X, Localio AR. Placement stability and early behavioral outcomes for children in out-of-home care. In: Haskins R, Wulczyn F, Webb MB, eds. *Practical Knowledge for Child Welfare Practitioners: Findings from the National Survey of Child and Adolescent Well-being*. Washington, DC: Brookings; 2007.
18. Achenbach TM. *Manual for the Child Behavioral Checklist and 1991 Profile*. Burlington, VT: University of Vermont, Department of Psychiatry; 1991.
19. Mott F, Baker P, Ball D, Keck CSL. *The NLSY Children 1992*. Columbus, OH: Center for Human Resource Research, Ohio State University; 1998.
20. Korn EL, Graubard BI. Analysis of large health surveys. Accounting for the sampling design. *J R Stat Soc Ser A Stat Soc*. 1995;58:263–295.
21. Flanders W, Rhodes P. Large sample confidence intervals for regression standardized risks, risk ratios, and risk differences. *J Chronic Dis*. 1987;40:697–704.
22. James S. Why do foster care placements disrupt? An investigation of reasons for placement change in foster care. *Soc Serv Rev*. 2004;78:601–627.
23. Burns BJ, Phillips SD, Wagner RH, et al. Mental health need and access to mental health services by youths involved with

- child welfare: a national survey. *J Am Acad Child Adolesc Psychiatry*. 2004;43:960–970.
24. Rubin D, Halfon N, Raghavan R, Rosenbaum S. *Protecting Children in Foster Care: Why Proposed Medicaid Cuts Harm Our Nation's Most Vulnerable Youth*. Washington, DC: Casey Family Programs; 2005.
  25. Committee on Early Childhood Adoption and Dependent Care, American Academy of Pediatrics. Health care of young children in foster care. *Pediatrics*. 2002;109:536–541.
  26. Hepburn K, McCarthy J. *Making Interagency Initiatives Work for Children and Families in the Child Welfare System*. Washington, DC: Georgetown University Center for Child and Human Development; 2003. Available at: [http://gucchd.georgetown.edu/programs/child\\_welfare\\_initiative/promising.html](http://gucchd.georgetown.edu/programs/child_welfare_initiative/promising.html). Accessed July 1, 2006
  27. McCarthy J. *Meeting the Health Care Needs of Children in the Foster Care System*. Washington, DC: Georgetown University; 2002.
  28. McCarthy J, McCullough C. *A View from the Child Welfare System*. Washington, DC: Georgetown University Center for Child and Human Development; 2003. Available at: [http://gucchd.georgetown.edu/files/products\\_publications/cw2.pdf](http://gucchd.georgetown.edu/files/products_publications/cw2.pdf). Accessed July 1, 2006
  29. Rubin DM, Alessandrini EA, Feudtner C, Mandell D, Localio AR, Hadley T. Placement stability and mental health costs for children in foster care. *Pediatrics*. 2004;113:1336–1341.
  30. Halfon N, Berkowitz G, Klee L. Mental health service utilization by children in foster care in California. *Pediatrics*. 1992;89:1238–1244.
  31. Takayama JJ, Bergman AB, Connell FA. Children in foster care in the state of Washington. Health care utilization and expenditures. *JAMA*. 1994;271:1850–1855.

---

#### CANCER PATIENTS UNCONCERNED ABOUT DOCTOR'S FINANCIAL TIES

"The vast majority of cancer patients participating in studies of experimental drugs do not care if the doctor running the study has financial ties to the drug's maker, according to a new survey that undermines 'full disclosure' as a central tenet of clinical research. Medical and professional societies have increasingly urged doctors to reveal all such conflicts of interest so patients can judge whether their doctor may have more than their health at heart. But perhaps because they are already overwhelmed by the challenges of their disease, most patients said they did not need to know those details and trusted that rules were in place to protect them. For more information, go to: [www.washingtonpost.com/wp-dyn/content/article/2006/11/29/AR2006112901387.html](http://www.washingtonpost.com/wp-dyn/content/article/2006/11/29/AR2006112901387.html)."

Vermont Medical Society. *News Scan*. December 4, 2006

Noted by JFL, MD

**The Impact of Placement Stability on Behavioral Well-being for Children in Foster Care**

David M. Rubin, Amanda L.R. O'Reilly, Xianqun Luan and A. Russell Localio

*Pediatrics* 2007;119;336-344

DOI: 10.1542/peds.2006-1995

**This information is current as of February 8, 2007**

**Updated Information  
& Services**

including high-resolution figures, can be found at:  
<http://www.pediatrics.org/cgi/content/full/119/2/336>

**References**

This article cites 13 articles, 6 of which you can access for free at:  
<http://www.pediatrics.org/cgi/content/full/119/2/336#BIBL>

**Subspecialty Collections**

This article, along with others on similar topics, appears in the following collection(s):  
**Office Practice**  
[http://www.pediatrics.org/cgi/collection/office\\_practice](http://www.pediatrics.org/cgi/collection/office_practice)

**Permissions & Licensing**

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:  
<http://www.pediatrics.org/misc/Permissions.shtml>

**Reprints**

Information about ordering reprints can be found online:  
<http://www.pediatrics.org/misc/reprints.shtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

